

ALTA/NSPS STANDARDS

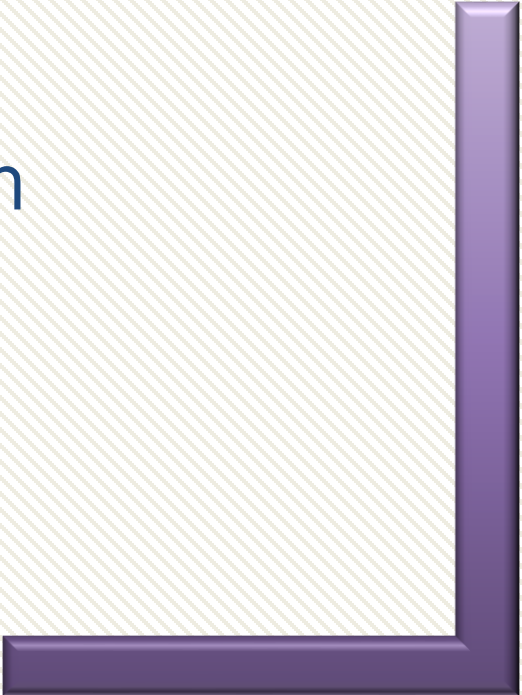
SESSION 31

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ALTA/NSPS STANDARDS

- A. Background
 - B. ALTA/NSPS Standards Organization
 - C. Required Elements
 - D. Table A
 - E. Summary
- 



A. Background

1. Title Insurance

If a grantee needs a mortgage, the lending institution will require title insurance to protect its interests.

Title Insurer can provide two types of policies:

Lender - in effect only for life of the loan

Owner - in effect as long as the property is owned by the insured party

Title Insurer has two protection duties for title issues

Duty to defend - when a conflict arises that is covered by the policy

Duty to indemnify for loss - when the insured suffers a financial loss for a covered item.





A. Background

1. Title Insurance

Title Policy has three parts

Schedule A : type and amount of insurance coverage, owner's information, general property information.

Schedule B-Part 1 : Requirements to satisfy before policy will be issued, eg, satisfaction of liens, payment of taxes, documents to record, etc. These are similar requirements for all policies.

Schedule B-Part 2 : Documents & circumstances that are exempted from B-Part 1 coverage. There are some standard exceptions found during a title search (eg, dropped easement, lien, etc) and boundary issues that would be determined by a property survey.



A. Background

2. Property Survey

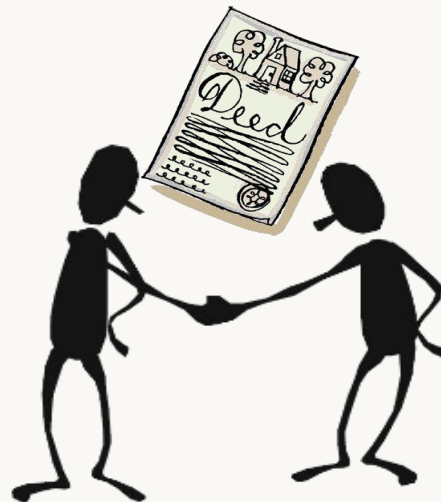
Is not required when conveying land between parties.

Grantor or grantee could order one prior to transaction.

Land surveyor will perform it according to local and state standards and common law.

The survey standards can vary across jurisdictions.

No warranty besides the surveyor's certification and potential liability.





A. Background

2. Property Survey Requirements and procedures

Parcel creation: statute law

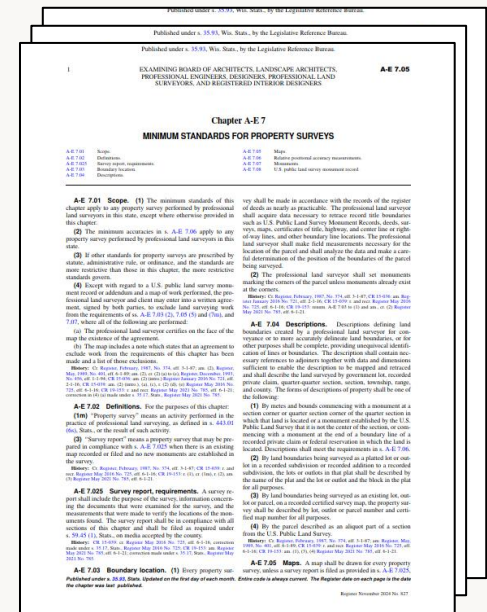
Wis Stat 236, 703 etc

Admin Code A-E 7

Parcel retracement: statute and common law

Admin Code A-E 7

Wis Court system





A. Background

3. Land Title Survey (LTS)

Is used for boundary issues in Schedule B-Part 2.

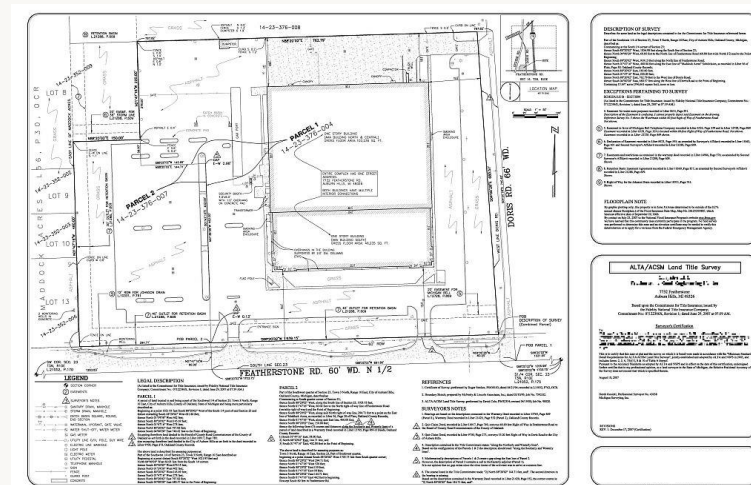
An LTS is a Property Survey; it differs in that:

- It generally contains greater detail.

- Its requirements and standards are more uniform across jurisdictions.

It is part of the title policy which financially warrants the property.

- All the additional data are those things which are often title issues.





A. Background

3. Land Title Survey (LTS)

Requirements and procedures

ALTA/NSPS Standards Minimum Detail Requirements for ALTA/NSPS Land Title Surveys

Parcel recreation or retracement principles

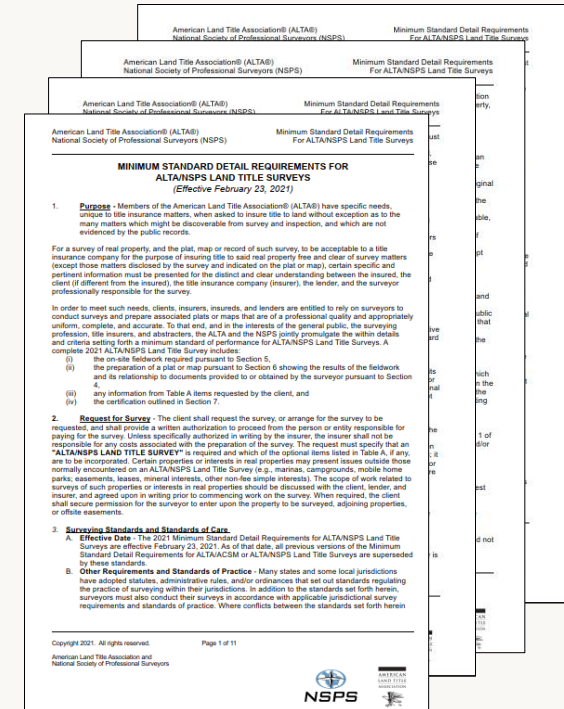
Work in conjunction with State & Local laws

Property and Land Title Surveys both depend on

Proper research

Surveyor judgement

Appropriate surveying principles





A. Background

4. ALTA/NSPS Standards Development

Originally developed by the American Land Title Assoc (ALTA) and American Congress on Surveying and Mapping (ACSM) in c1962

2012 ACSM merged into National Society of Professional Surveyors (NSPS)

Standards are continuously updated - 2021 latest version

American Land Title Association® (ALTA®)
National Society of Professional Surveyors (NSPS)

Minimum Standard Detail Requirements
For ALTA/NSPS Land Title Surveys

**MINIMUM STANDARD DETAIL REQUIREMENTS FOR
ALTA/NSPS LAND TITLE SURVEYS**
(Effective February 23, 2021)





B. ALTA/NSPS Standards Organization

The Standards Are divided into two parts: Required and Optional

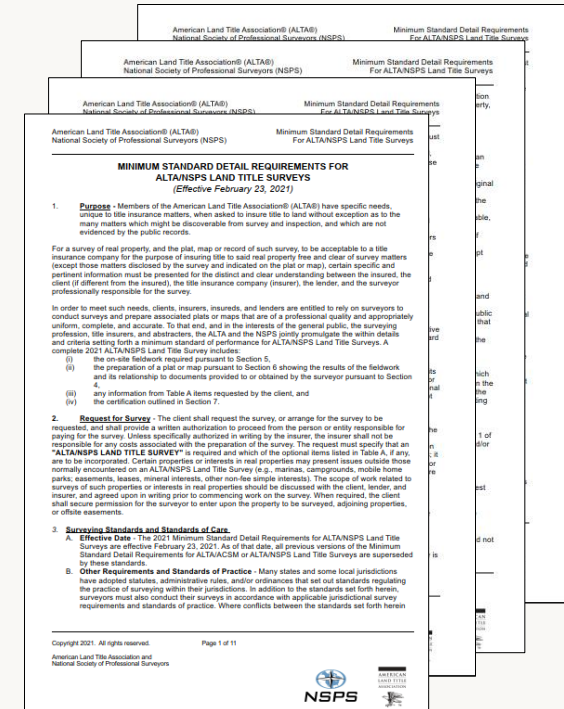
Required: Elements for all LTS

1. Purpose
2. Request for Survey
3. Surveying Standards
4. Records research
5. Fieldwork
6. Plat or Map
7. Certification

Optional: Table A

Other elements required by client.

Will differ based on situation, location, proposed use, etc.





C. Required Elements

Section 1 Purpose

Reason for an LTS - insuring title.

An LTS includes:

Fieldwork

Plat

Table A items

Certification

Each item has its own section with details.



Section 2 Request for Survey

There must be written authorization from the client to execute the survey.

Must specify that an "ALTA/NSPS Land Title Survey" is required and identify Table A items to include.

Any other items are agreed upon in writing; contract.

Scope of work, Liability limitation, payment/penalties, deliverables, etc.



C. Required Elements

Section 3: Survey Standards and Standards of Care

General process, measurement standards, research, etc, for the survey.

Sub-Section A: Effective Date:

Latest standards supersede all earlier versions.

Updated every few years therefor important to identify which are used.

Sub-Section B: Other Requirements and Standards of Care

State/Local requirements must also be met.

When in conflict the more stringent of State/Local or ALTA/NSPS will be used.



C. Required Elements

Section 3: Survey Standards and Standards of Care

General process, measurement standards, research, etc, for the survey.

Sub-Section C: The Normal Standard of Care

Competent surveyor in the context of local and/or regional expectations or standards.

Sub-Section D: Boundary

Boundaries are retraced according to appropriate boundary law principles and state/local laws.

Record data

Written, physical, parol evidence

Rules of Construction



C. Required Elements

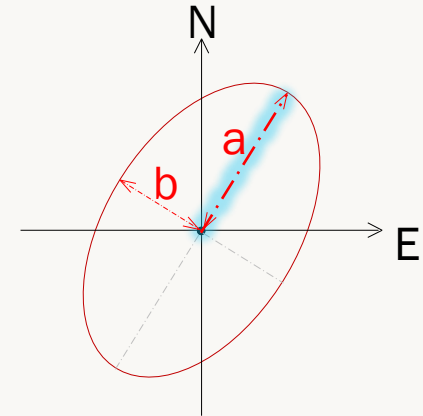
Section 3: Survey Standards and Standards of Care

Sub-Section E: Measurement Standards

Potentially the most confusing aspect of the Standards.

Relative Positional Precision (RPP) is the "length of the semi-major axis, expressed in meters or feet, of the error ellipse representing the uncertainty in the position of the monument or witness marking any boundary corner of the surveyed property relative to the position of the monument or witness marking an immediately adjacent boundary corner of the surveyed property resulting from random errors in the measurements made in determining those positions at the 95 percent confidence level."

Got it?



a: semi-major axis



C. Required Elements

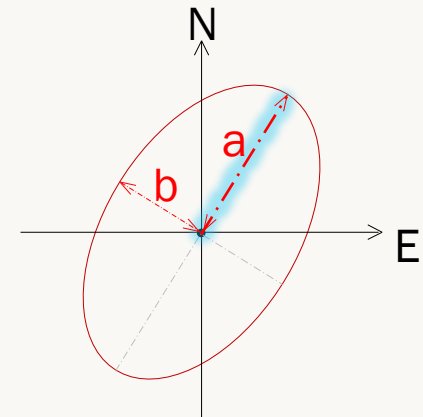
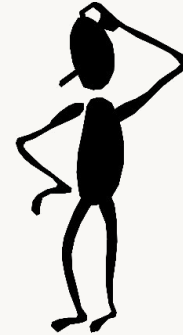
Section 3: Survey Standards and Standards of Care Sub-Section E: Measurement Standards

What ...

... is an error ellipse?

... are random errors?

... does 95% confidence level mean?



a: semi-major axis



C. Required Elements

Section 3: Survey Standards and Standards of Care

Sub-Section E: Measurement Standards

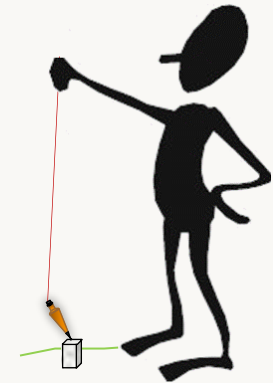
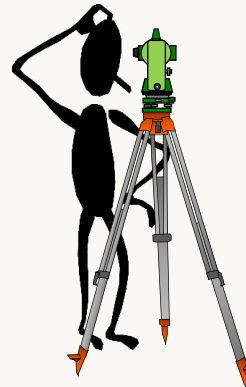
Every measurement is subject to errors: Mistakes, Systematic, & Random

Mistake

Blunder

Ex: Measuring to the wrong point; Using wrong HI

Comp: Check/verify; Remeasure



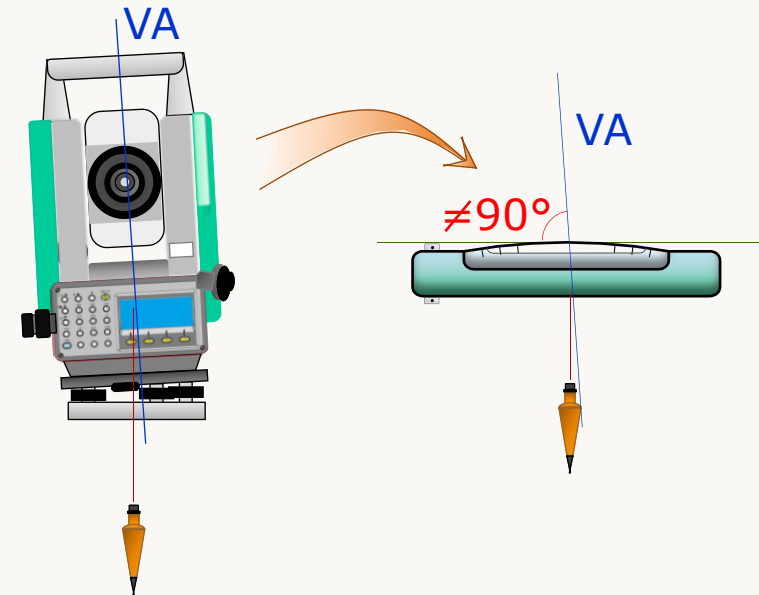
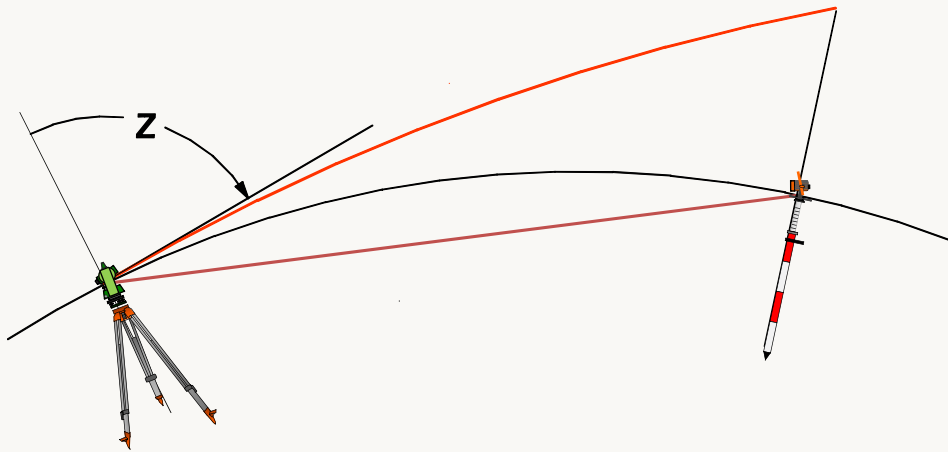


C. Required Elements

Section 3: Survey Standards and Standards of Care

Sub-Section E: Measurement Standards

Systematic Conforms to a mathematical or physical law
Ex: Curvature & refraction; Bubble run
Comp: Mathematical corr'n or procedure





C. Required Elements

Section 3: Survey Standards and Standards of Care

Sub-Section E: Measurement Standards

Random	Errors left after mistakes corrected and systematic compensated. Tend to be small and \pm Measurement Ex: Total Sta Dist MSA: $\pm(2 \text{ cm} + 3 \text{ ppm})$ Setup Ex: Instrument centering Comp: Are <i>always</i> present, but can minimized procedurally.
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E_I – Instrument centering error
 E_R – Reflector centering error
MSA – Distance error

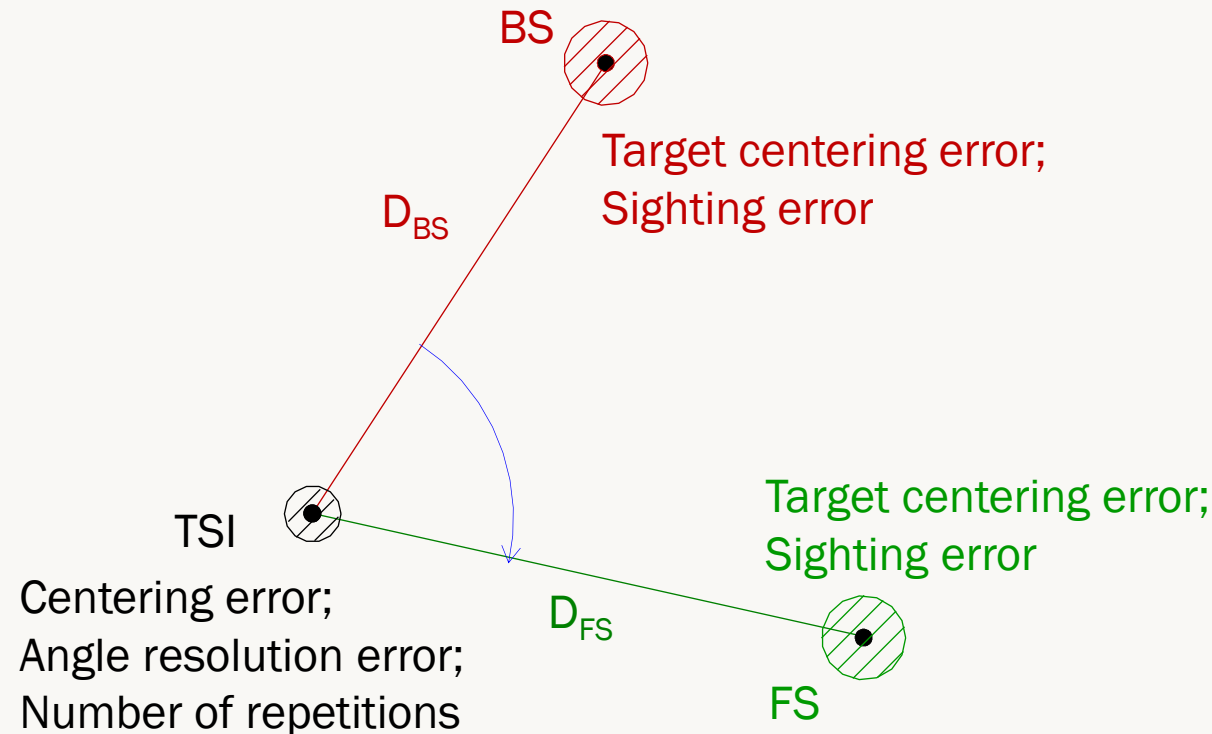


C. Required Elements

Section 3: Survey Standards and Standards of Care

Sub-Section E: Measurement Standards

Example of random error sources in angle measurement



$$E_{pr} = \frac{2 \times E_{DIN}}{\sqrt{n}}$$

$$E_{tsi} = \frac{D \times E_i}{D_{BS} D_{FS} \sqrt{2}} \times \frac{206,264.8 \text{ sec}}{\text{radian}}$$

$$E_{ang} = \sqrt{E_{pr}^2 + E_{tsi}^2 + E_t^2}$$

$$E_t = \sqrt{\left(\frac{E_{BS}}{D_{BS}}\right)^2 + \left(\frac{E_{FS}}{D_{FS}}\right)^2} \times \frac{206,264.8 \text{ sec}}{\text{radian}}$$

Highlighted: Errors we control

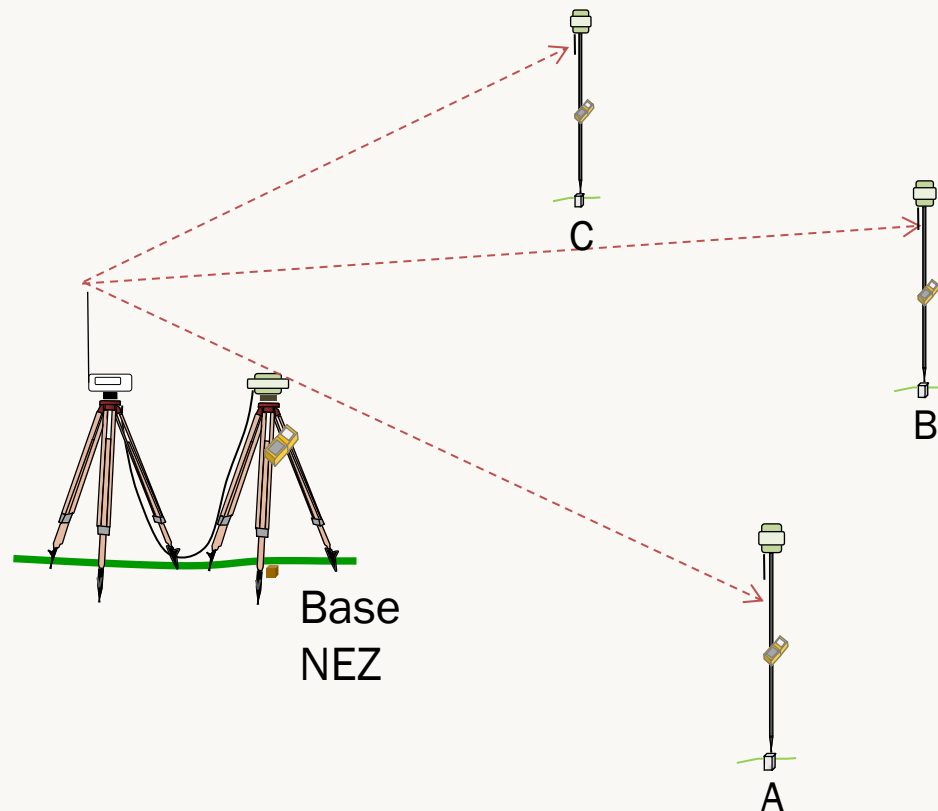


C. Required Elements

Section 3: Survey Standards and Standards of Care

Sub-Section E: Measurement Standards

Example of random error sources in GPS measurement



Well...

Centering: Base/Rover

Baseline MSA

Observation quality

PDOP

Atmos modeling

S/N ratio - multipath

Cycle slip

Site calibration control

...



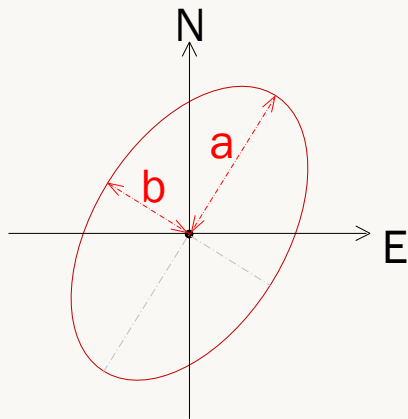
C. Required Elements

Section 3: Survey Standards and Standards of Care

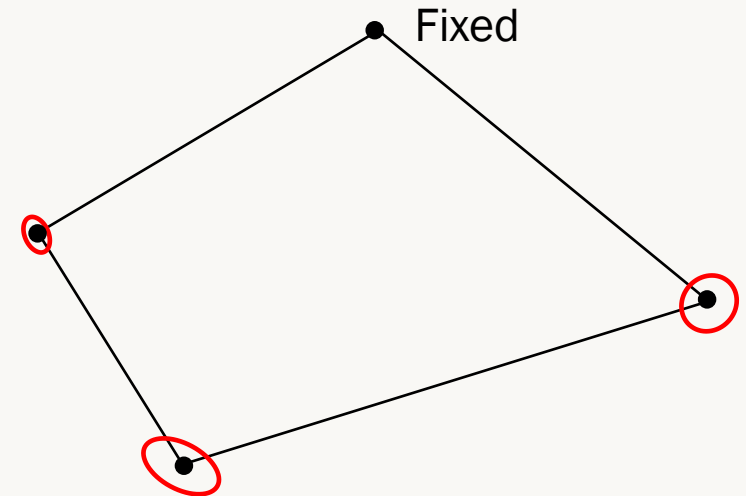
Sub-Section E: Measurement Standards

An error ellipse is a graphic representation of two-dimensional uncertainty based on random error accumulation.

Except for fixed points, each point will have its own *network* error ellipse which is an estimate of that point's *absolute* position uncertainty.



a: semi-major axis



Absolute: Network

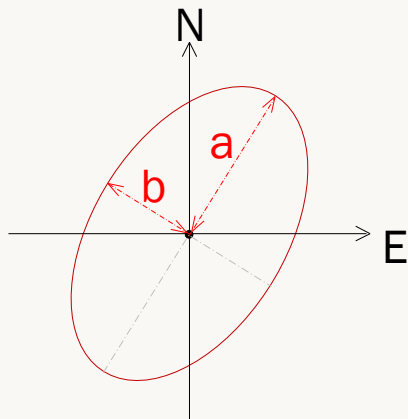


C. Required Elements

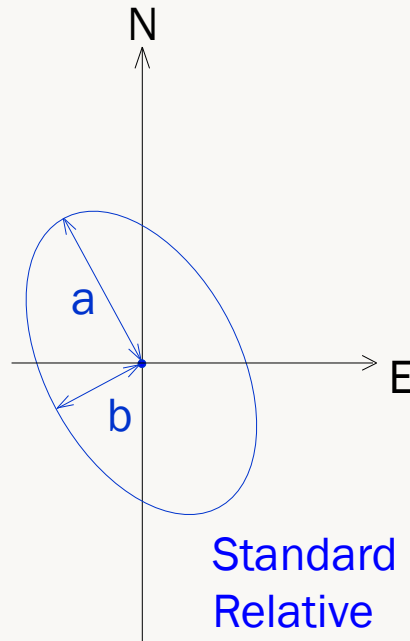
Section 3: Survey Standards and Standards of Care

Sub-Section E: Measurement Standards

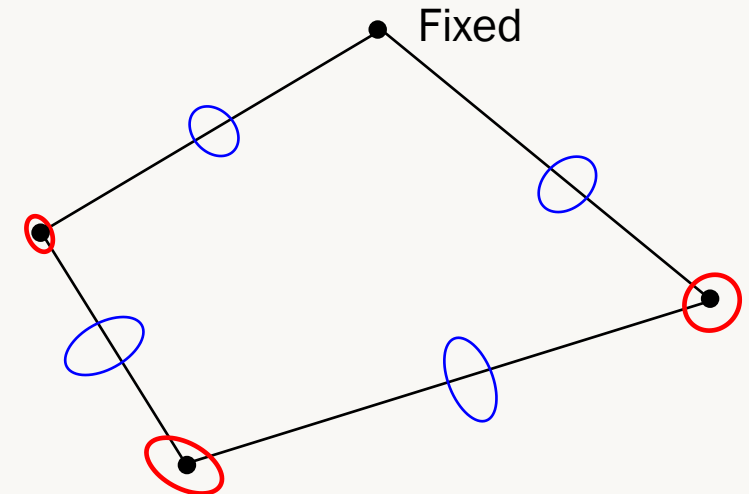
A **relative** error ellipse is the uncertainty *between* points. This is a **local** uncertainty.



a: semi-major axis



Standard
Relative
Ellipse



Absolute: Network
Relative: Local



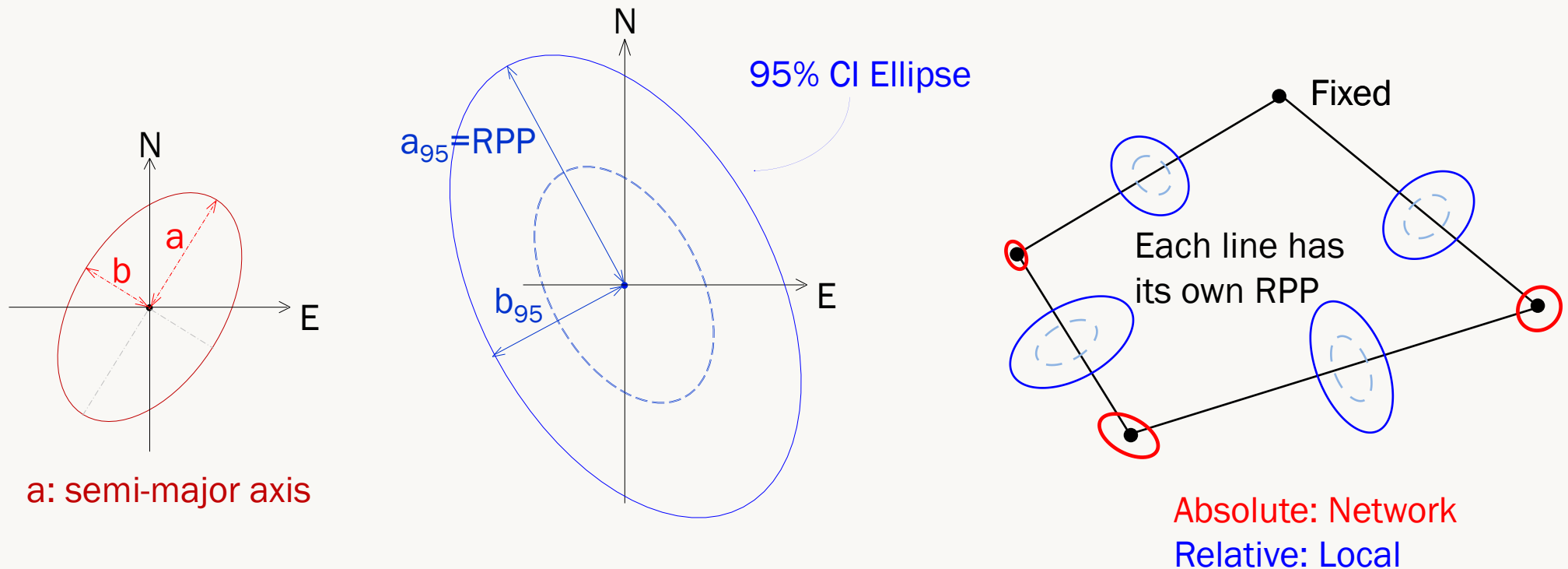
C. Required Elements

Section 3: Survey Standards and Standards of Care

Sub-Section E: Measurement Standards

The RPP is the 95% CI relative error ellipse between points.

Max allowable RPP is 2 cm (0.07 feet) plus 50 ppm





C. Required Elements

Section 3: Survey Standards and Standards of Care

Sub-Section E: Measurement Standards

How to determine the 95% relative error ellipses between adjacent property corners?

"Relative Positional Precision can be estimated by the results of a correctly weighted least squares adjustment of the survey. Alternatively, Relative Positional Precision can be estimated by the standard deviation of the distance between the monument ... and the... immediately adjacent boundary corner ... computed using the full covariance matrix of the coordinate inverse ..."

Which is why we use software.





C. Required Elements

Section 3: Survey Standards and Standards of Care

Sub-Section E: Measurement Standards

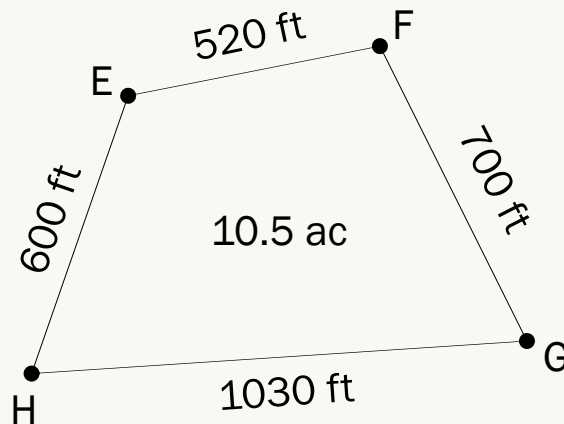
Max allowable RPP is 2 cm (0.07 feet) plus 50 ppm

Two-part error that propagates as an *Error of a Sum*:

$$E_{sum} = \sqrt{E_1^2 + E_2^2 + \dots + E_n^2}$$

$$RPP = a_{95} = \sqrt{(0.07 \text{ ft})^2 + (d \times 50 \text{ ppm})^2}$$

Check adjustment results to these.



$$EF \Rightarrow RPP = \sqrt{(0.07 \text{ ft})^2 + (520 \times 50 \text{ ppm})^2} = \pm 0.075 \text{ ft}$$

$$FG \Rightarrow RPP = \sqrt{(0.07 \text{ ft})^2 + (700 \times 50 \text{ ppm})^2} = \pm 0.078 \text{ ft}$$

$$GH \Rightarrow RPP = \sqrt{(0.07 \text{ ft})^2 + (1030 \times 50 \text{ ppm})^2} = \pm 0.087 \text{ ft}$$

$$HE \Rightarrow RPP = \sqrt{(0.07 \text{ ft})^2 + (600 \times 50 \text{ ppm})^2} = \pm 0.076 \text{ ft}$$



C. Required Elements

Section 3: Survey Standards and Standards of Care

Sub-Section E: Measurement Standards

Positional uncertainty also affected by legal elements:

- Condition and character of monumentation

- Ambiguities – patent and latent; resolution potential

- Occupation (possession) vs title (deed) lines

Legal elements are a function of intent, record data, and evidence

RPP is only an indicator of the measurements' quality, It is not a reflection of records research, evidence evaluation, or corner location.

- Technology doesn't drive legal decisions.

- You can have great RPP using wrong corners.



C. Required Elements

Section 3: Survey Standards and Standards of Care

Sub-Section E: Measurement Standards

Once legal decisions are reached, measurements help memorialize them and identify spatial relationships.

For the measurement technology or procedure employed, the surveyor must:

- Use appropriately trained personnel

- Compensate systematic errors

- Use correct procedures and network design to control random errors

The RPP is the **standard** (the "what"), the **specification** (the "how") is the surveyor's responsibility,



C. Required Elements

Section 3: Survey Standards and Standards of Care

Sub-Section E: Measurement Standards

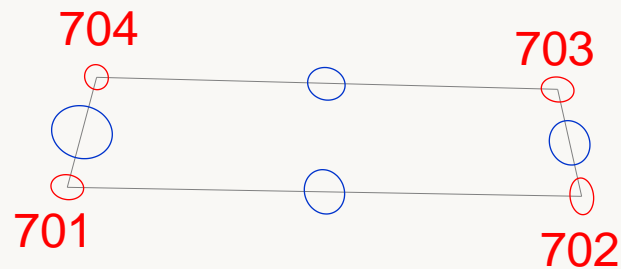
Example: Narrow parcel RTK-GPS project.

Each point had two short occupations

Dist to City GPS Base approx. 2.4 miles

Weights: baseline error [$\pm(8 \text{ mm} + 1 \text{ ppm})$]. rover centering ($\pm 0.05 \text{ ft}$)

StarNet least squares adjustment



Ellipses scaled 150X

Line	Adjustment		Allowable RPP (ft)	Pass?
	Adj Length (ft)	RPP (ft)		
701-702	299.379 ± 0.154	± 0.077	± 0.072	No
702-703	63.571 ± 0.162	± 0.077	± 0.070	No
703-704	268.470 ± 0.102	± 0.067	± 0.071	Yes
704-701	65.972 ± 0.139	± 0.079	± 0.070	No



C. Required Elements

Section 3: Survey Standards and Standards of Care

Sub-Section E: Measurement Standards

RPP Failure? Things to consider:

- Field procedure(s)

 - Modify network

 - Higher accuracy instruments

 - Careful equipment centering

 - Repeat measurements

 - Verify systematic errors are compensated

 - eg: optical plummet?

- GPS

 - Increase observation times

 - Re-occupy points

- Independent measurements



C. Required Elements

Section 3: Survey Standards and Standards of Care

Sub-Section E: Measurement Standards

RPP Failure? Things to consider:

Software/Analysis

“correctly weighted least squares adjustment”

Mixed quality measurements

Instrumental errors

Personal errors (centering, HI determination)

Not all software packages allow complete a priori estimates

Sec 3Ei. RPP 95% CI is “approximately 2 standard deviations.”

StarNet and some other software packages use 2.54 multiplier

Others use multiplier based on number of redundancies (F-Statistic).

For this survey example the multiplier is 3.40.

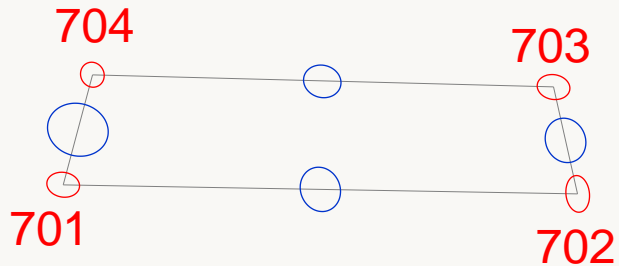


C. Required Elements

Section 3: Survey Standards and Standards of Care

Sub-Section E: Measurement Standards

Comparison of the different ways to determine the 95% CI



Ellipses scaled 150X

Line	RPP Multiplier			Allowable RPP
	StarNet 2.54	ALTA 2.00	F-Statistic 3.40	
701-702	±0.077	±0.061	±0.103	±0.072
702-703	±0.077	±0.061	±0.103	±0.070
703-704	±0.067	±0.026	±0.090	±0.071
704-701	±0.079	±0.031	±0.106	±0.070

Red means passing

A project that fails in one software package might pass in another.

How does **your** software determine the 96% CI?

Does it support complete instrument and personal errors?



C. Required Elements

Section 3: Survey Standards and Standards of Care

Sub-Section E: Measurement Standards

"Correctly weighted least squares adjustment"

StarNet allows entry of instrumental and personal a priori values

Project Options

Adjustment | General | Instrument | Listing File | Other Files

Conventional

Distance Constant: FeetUS

Distance PPM:

Angle: Seconds

Direction: Seconds

Azimuth / Bearing: Seconds

Zenith: Seconds

Elev Diff Constant: FeetUS

Elev Diff PPM:

Centering Errors:

Horiz Instrument: FeetUS

Horiz Target: FeetUS

Vertical: FeetUS

Least Square Standard Errors (A Priori)

Distance (Feet)

	Horizontal	Vertical
Constant	<input type="text" value="0.050"/>	<input type="text" value="0.050"/>
ppm	<input type="text" value="5"/>	<input type="text" value="5"/>

Angles (Seconds)

	Horizontal	Vertical
Pointing	<input type="text" value="5.000"/>	<input type="text" value="5.000"/>
Reading	<input type="text" value="5.000"/>	<input type="text" value="5.000"/>

Direction (Seconds)

Azimuth/Bearing

Coordinates (Feet)

Y X Z

Free Fix

Save Settings Recall Settings

OK Cancel

Traverse PC only allows entry of instrumental a priori values.



C. Required Elements

Section 3: Survey Standards and Standards of Care

Sub-Section E: Measurement Standards

Remember that RPP is a measurement quality indicator.

It is **not** an indicator of legal corner correctness.

You can have a passing RPP on a line that is in between wrong corners.

Despite equipment, procedures, weighing, etc, site conditions may affect ability to achieve RPP on every line.

Those lines affected must be noted on final plat including the reason.

Described in Section 6.



C. Required Elements

Section 4: Records Research

Unlike a property survey where the surveyor does *all* the records research, for a LTS he/she is to be provided with title data on which to base the survey.

A. Current record description of the parcel or current record description of the parent parcel that contains the property;

B. Complete copies of the most recent title commitment or other title evidence satisfactory to the title insurer;





C. Required Elements

Section 4: Records Research

C. The following documents:

Current record descriptions of adjoining, except where they are lots in platted, recorded subdivisions;

Any recorded easements benefitting the property

Any recorded easements, servitudes, or covenants burdening the property

These can be the most challenging aspect to find

Can have latent effect on property.

D. If desired by the client, any unrecorded documents affecting the property and containing information to which the survey makes reference.



C. Required Elements

Section 4: Records Research

What if complete records are not provided or additional documents are required?

Surveyor must conduct the research

Per State/Local requirements

Prudent surveying practice

As defined in contract



An LTS survey does not relieve the surveyor of research responsibility.



At least a title commitment or current abstract must be provided or the survey cannot be called a Land Title Survey.



C. Required Elements

Section 4: Records Research

What about other records that may impact the property?

Non-survey stuff that appear in the documents?

Restrictions

Covenants

Leases

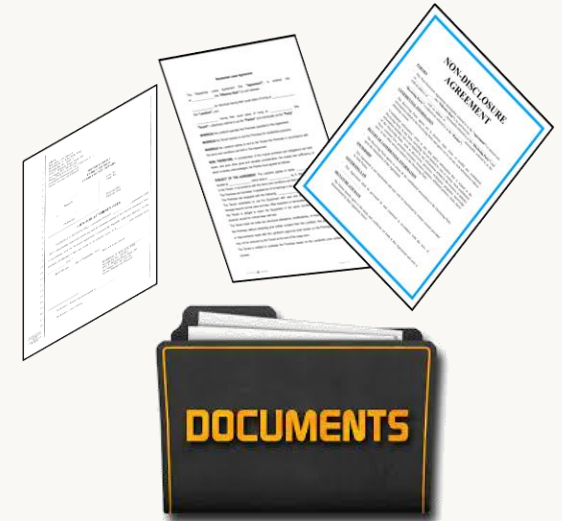
Leins

Basically, surveyor is responsible for "plottable" things

Matters of Survey: Concerns boundaries

vs

Matters of Title: Concerns rights





C. Required Elements

Section 5: Fieldwork

The survey must be performed on the ground.

There are exceptions in Table A.

Except as otherwise required for boundary corners and lines, surveyor's discretion how precisely to locate other features.

Any encroachment identified and mapped is without legal opinion.

eg, surveyor doesn't determine adverse possession but could be collecting evidence of it.





C. Required Elements

Section 5: Fieldwork

A. Monuments: location, size, type, character

Found and set (Table A or jurisdictional)

Lines that control parcel boundary

B. Rights-of-Way (RoW) & access

Nearest access location if property doesn't abut a RoW

Name, size, & dimension of abutting streets

Visible evidence of physical access

Visible evidence of access to/across property by other than owner.

Visible evidence of encroaching access (w/o expressing legal opinion)

Visible evidence of waterway access

Potential
prescriptive
easements



C. Required Elements

Section 5: Fieldwork

C. Possession & Improvements along Boundaries

Potential prescriptive easements

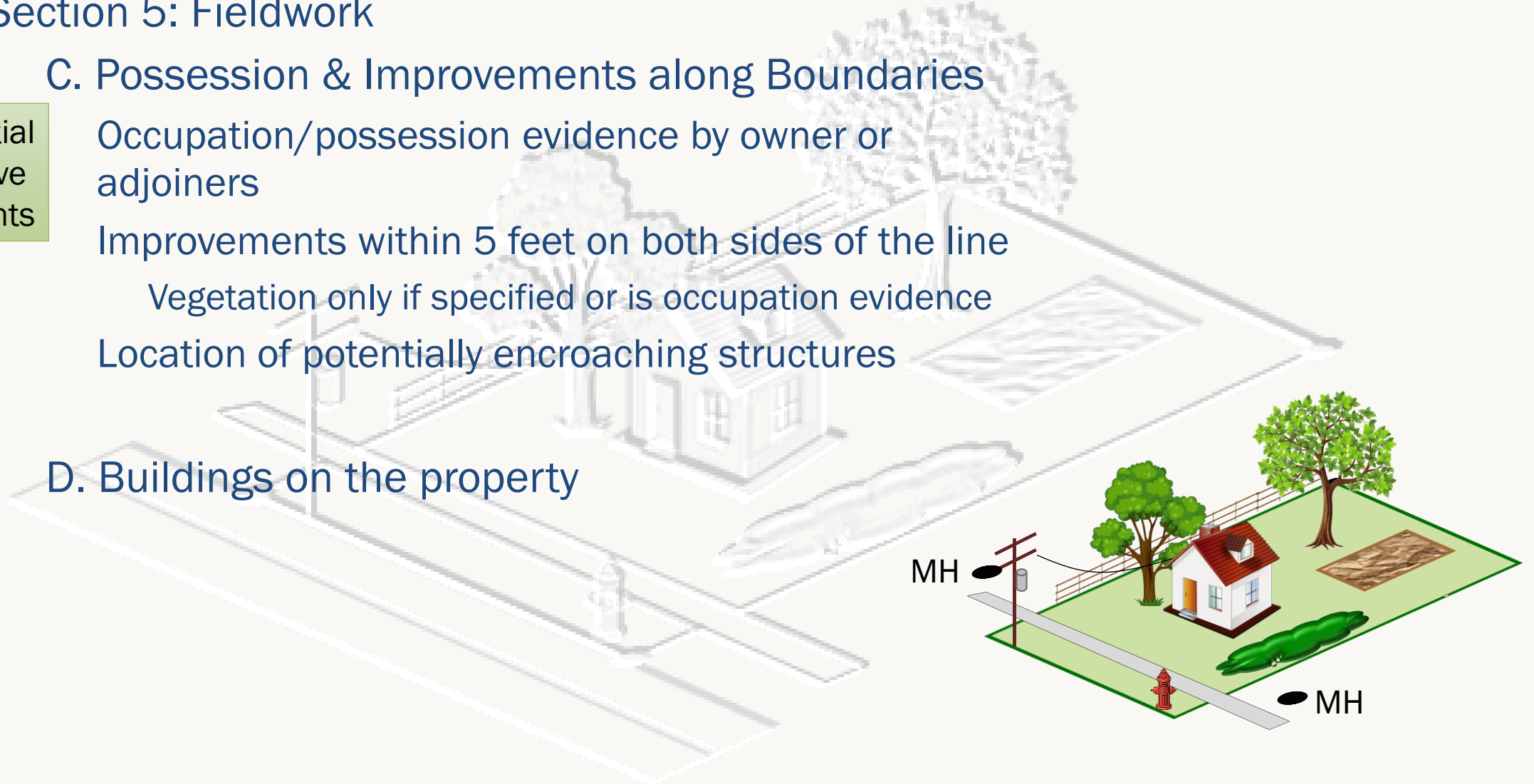
Occupation/possession evidence by owner or adjoining

Improvements within 5 feet on both sides of the line

Vegetation only if specified or is occupation evidence

Location of potentially encroaching structures

D. Buildings on the property





C. Required Elements

Section 5: Fieldwork

E. Easements and Servitudes

Evidence of those on provided documents

Evidence of those not on doc

Surface indications of underground easements

Observed evidence of easements on or above the property

Utility poles w/in 10 ft of boundary

Utility locate markings (eg, Diggers Hotline) can be used as utility evidence. Identify source of markings.

What about "...and subject to any easements of record." disclaimer?



C. Required Elements

Section 5: Fieldwork

F. Cemeteries

Documented or observed

Burial area perimeter

Isolated gravesites

Mounds?

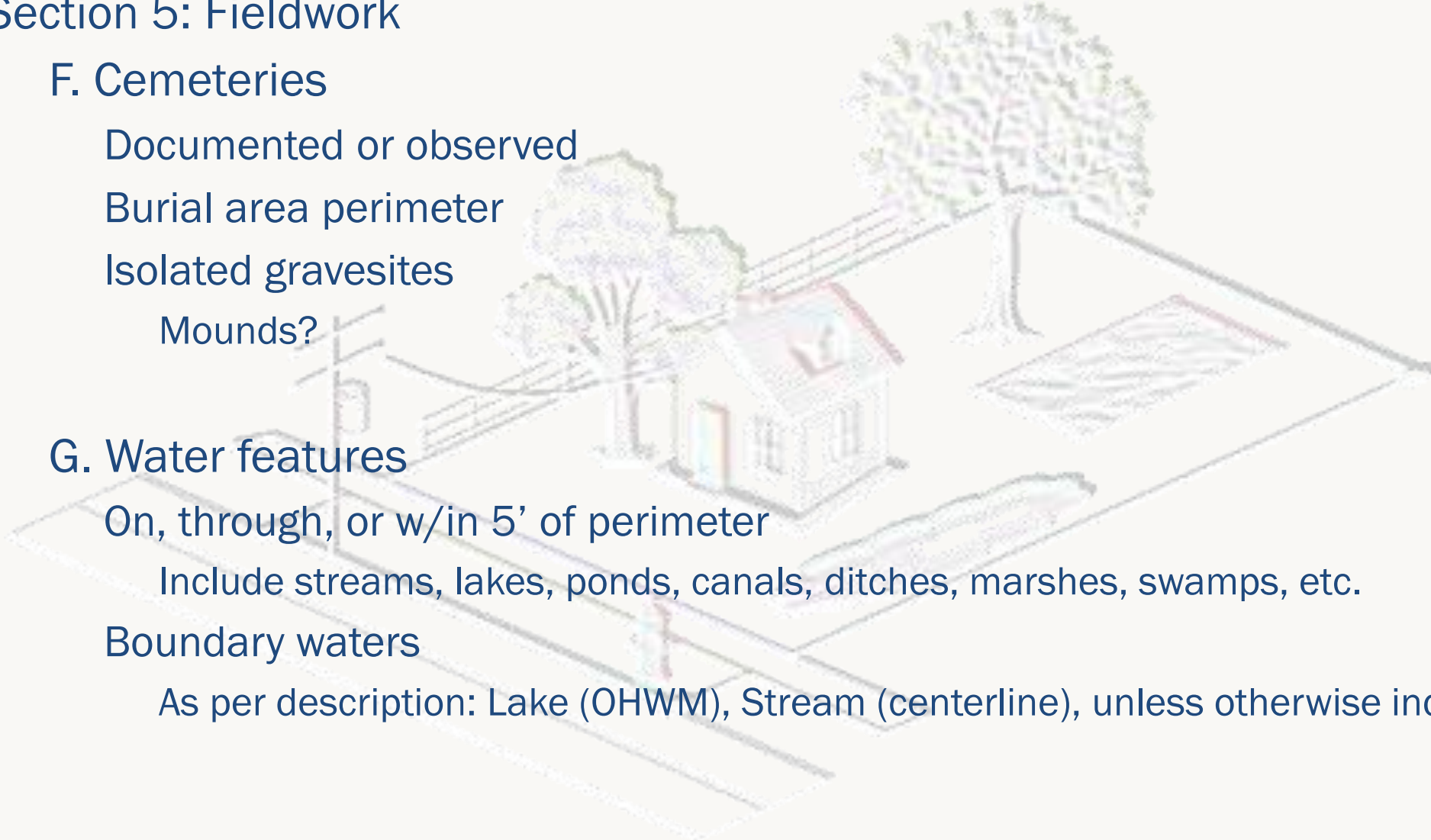
G. Water features

On, through, or w/in 5' of perimeter

Include streams, lakes, ponds, canals, ditches, marshes, swamps, etc.

Boundary waters

As per description: Lake (OHWM), Stream (centerline), unless otherwise indicated





C. Required Elements

Section 6: Plat or Map

There is a lot of map detail required in Section 6.

Basically, everything collected in Section 5 must appear in some form on the map.

In coherent fashion with explanatory notes as necessary.

Map dimension precisions on the map determined by surveyor based on

- (a) planned use of the property as reported to the surveyor, or
- (b) existing use.

Man, that's a
lotta stuff!





C. Required Elements

Section 6: Plat or Map

A. Field Locations

All data collected under Section 5, with notes as needed, will be shown unless otherwise indicated in this Section.

B. Boundary. Descriptions, Dimensions, and Closures - 12 areas

Major points

- i. Current description (existing parcel) or that of parent (new parcel)
- ii. Writing a new description for existing parcel:

Should be avoided, particularly if parcel is a Subdiv lot. Why?

If a new one is written, a statement should be included that explains why it was written.

Also, that it either describes the same property as the record description or how it differs.



C. Required Elements

Section 6: Plat or Map

B. Boundary. Descriptions, Dimensions, and Closures - 12 areas

Major points

- iii. Record dimensions shown unless resurveyed values are sufficiently different in the surveyor's judgement
- iv. Sufficient dimensions to compute mathematical closure.
 - A note if record description doesn't close
- v. Parent parcel graphically depicted, need not be part of the LTS, except as needed to establish lines.
- vi. Water boundary. Include note:
 - date it was surveyed
 - attributes located
 - subject to natural changes & may not be title limits



C. Required Elements

Section 6: Plat or Map

B. Boundary. Descriptions, Dimensions, and Closures - 12 areas

Major points

vii. Adjoiner relationships

Gaps or overlaps disclosed to insurer and client prior to final map delivery

viii. Notes on plat if surveyor believes survey results differ significantly from record

ix. Building locations dimensioned perpendicular to boundary.

x. Note explaining site conditions along a line where RPP was not achieved.

xi. Note explaining areas where physical boundary access within 5 feet was restricted.

xii. Note identifying title evidence provided, date, and name of insurer.



C. Required Elements

Section 6: Plat or Map

C. Easements, Servitudes, Rights of Way, Access, and Documents

Location & info on record easements

Summary of all R/W & easements & other survey-related matters that burden the property

Note if no physical access was observed

Location of abutting or crossing R/W and info source

Recorded plats, filed plats, R/W maps, etc, survey represents

Recoding data & tax parcel ID for adjoining parcels

Setback lines, building restriction lines

If surveyor discovers a recorded easement not included in provided insurer's title evidence must advise insurer prior to map delivery.



C. Required Elements

Section 6: Plat or Map

D. Presentation

Map requirements

Min sheet size: 8-1/2 x 11

Drawn at "standard" scale

Standard map elements: Scale statement & graphic, North arrow, Legend, Vicinity map, Sheet numbers, etc.

Detail diagrams as needed.

Revision dates

Table A modifications

"No buildings observed" if none are present

Must be captioned "ALTA/NSPS Land Title Survey"



C. Required Elements

Section 7: Certification

In all states, any property resurvey by a land surveyor requires a map on which the surveyor attests to following appropriate rules and laws. This is signed and dated.

ALTA/NSPS survey is similar. This must appear unaltered (except as per Sec 3B):

“To (name of insured, if known), (name of lender, if known), (name of insurer, if known), (names of others as negotiated with the client):

This is to certify that this map or plat and the survey on which it is based were made in accordance with the 2021 Minimum Standard Detail Requirements for ALTA/NSPS Land Title Surveys, jointly established and adopted by ALTA and NSPS, and includes Items _____ of Table A thereof. The fieldwork was completed on _____ [date].

Date of Plat or Map: _____ (Surveyor’s signature, printed name and seal with Registration/License Number)”





C. Required Elements

Section 8: Deliverables

Plat or Map

The surveyor must provide copies of the plat/map to:

- Client
- Insurer
- Others identified by client



Hardcopy and/or digital as specified by client.

Plat recorded or filed in public office if required by state or local laws.



D. Table A

Table A is used to customize the survey for local conditions, lending institution needs, and local ordinances.

May or may not have effect on title.

Nineteen optional specific items and one open for additional item(s).

What each entails and costs are negotiated between client and surveyor.

<u>TABLE A</u>	
OPTIONAL SURVEY RESPONSIBILITIES AND SPECIFICATIONS	
<p>Striping of clearly identified</p> <p>10. _____ As described division or party walls</p> <p>11. Evidence of unobserved evidence of _____ (a) plan _____ (b) mark</p> <p>Note to the client, instructions checked above will be develop a view of the underground features jurisdictions, 811 or other incomplete response surveyor's assessment required, the client is</p> <p>12. _____ As specified surveys, surveys for lot requirements are to be</p> <p>13. _____ Names identify the first owner</p> <p>14. _____ As specified</p> <p>15. _____ Rectification laser scanning and other certain features (excluding locate those features surveyor must (a) disclose completeness of the data of the survey, and (b) other relevant qualifications</p> <p>16. _____ Evidence observed in the process</p> <p>17. _____ Proposed surveyor by the contractor observed in the process</p> <p>18. _____ Pursuant item 1), include as part documents provided to</p> <p>19. _____ Professional \$ _____ to be upon request, but this</p> <p>20. _____</p>	<p>NOTE: Whether any of the nineteen (19) items of Table A are to be selected, and the exact wording of and fee for any selected item, may be negotiated between the surveyor and client. Any additional items negotiated between the surveyor and client must be identified as 20(a), 20(b), etc. Any additional items negotiated between the surveyor and client, and any negotiated changes to the wording of a Table A item, must be explained pursuant to Section 6.D.ii.(g). Notwithstanding Table A Items 5 and 11, if an engineering design survey is desired as part of an ALTA/NSPS Land Title Survey, such services should be negotiated under Table A, Item 20.</p> <p>If checked, the following optional items are to be included in the ALTA/NSPS LAND TITLE SURVEY, except as otherwise qualified (see note above):</p> <ol style="list-style-type: none">1. _____ Monuments placed (or a reference monument or witness to the corner) at all major corners of the boundary of the surveyed property, unless already marked or referenced by existing monuments or witnesses in close proximity to the corner.2. _____ Address(es) of the surveyed property if disclosed in documents provided to or obtained by the surveyor, or observed while conducting the fieldwork.3. _____ Flood zone classification (with proper annotation based on federal Flood Insurance Rate Maps or the state or local equivalent) depicted by scaled map location and graphic plotting only.4. _____ Gross land area (and other areas if specified by the client).5. _____ Vertical relief with the source of information (e.g., ground survey, aerial map), contour interval, datum, with originating benchmark, when appropriate.6. _____ (a) If the current zoning classification, setback requirements, the height and floor space area restrictions, and parking requirements specific to the surveyed property are set forth in a zoning report or letter provided to the surveyor by the client or the client's designated representative, list the above items on the plat or map and identify the date and source of the report or letter. _____ (b) If the zoning setback requirements specific to the surveyed property are set forth in a zoning report or letter provided to the surveyor by the client or the client's designated representative, and if those requirements do not require an interpretation by the surveyor, graphically depict those requirements on the plat or map and identify the date and source of the report or letter.7. _____ (a) Exterior dimensions of all buildings at ground level. _____ (b) Square footage of: _____ (1) exterior footprint of all buildings at ground level. _____ (2) other areas as specified by the client. _____ (c) Measured height of all buildings above grade at a location specified by the client. If no location is specified, the point of measurement shall be identified.8. _____ Substantial features observed in the process of conducting the fieldwork (in addition to the improvements and features required pursuant to Section 5 above) (e.g., parking lots, billboards, signs, swimming pools, landscaped areas, substantial areas of refuse).9. _____ Number and type (e.g., disabled, motorcycle, regular and other marked specialized types) of clearly identifiable parking spaces on surface parking areas, lots and in parking structures.



D. Table A

General Instructions

TABLE A

Scope and cost

OPTIONAL SURVEY RESPONSIBILITIES AND SPECIFICATIONS

NOTE: Whether any of the nineteen (19) items of Table A are to be selected, and the exact wording of and fee for any selected item, may be negotiated between the surveyor and client. Any additional items negotiated between the surveyor and client must be identified as 20(a), 20(b), etc. Any additional items negotiated between the surveyor and client, and any negotiated changes to the wording of a Table A item, must be explained pursuant to Section 6.D.ii.(g). Notwithstanding Table A Items 5 and 11, if an engineering design survey is desired as part of an ALTA/NSPS Land Title Survey, such services should be negotiated under Table A, Item 20.

If checked, the following optional items are to be included in the ALTA/NSPS LAND TITLE SURVEY, except as otherwise qualified (see note above):

Presentation



D. Table A

Fieldwork Modification

Standards

Section 5. Fieldwork - The survey must be performed on the ground (except as may be otherwise negotiated pursuant to Table A, Item 15 below)...

Table A

15. _____ *Rectified orthophotography, photogrammetric mapping, remote sensing, airborne/mobile laser scanning and other similar products, tools or technologies as the basis for showing the location of certain features (excluding boundaries) where ground measurements are not otherwise necessary to locate those features to an appropriate and acceptable accuracy relative to a nearby boundary. The surveyor must (a) discuss the ramifications of such methodologies (e.g., the potential precision and completeness of the data gathered thereby) with the insurer, lender, and client prior to the performance of the survey, and (b) place a note on the face of the survey explaining the source, date, precision, and other relevant qualifications of any such data.*



D. Table A

Extra Items

TABLE A

OPTIONAL SURVEY RESPONSIBILITIES AND SPECIFICATIONS

NOTE: Whether any of the nineteen (19) items of Table A are to be selected, and the exact wording of and fee for any selected item, may be negotiated between the surveyor and client. Any additional items negotiated between the surveyor and client must be identified as 20(a), 20(b), etc. Any additional items negotiated between the surveyor and client, and any negotiated changes to the wording of a Table A item, must be explained pursuant to Section 6.D.ii.(g). Notwithstanding Table A Items 5 and 11, if an engineering design survey is desired as part of an ALTA/NSPS Land Title Survey, such services should be negotiated under Table A, Item 20.

20. (a) _____
20. (b) _____
20. (c) _____



E. Summary

An ALTA/NSPS Land Title Survey is a few significant steps above a traditional property survey:

Property survey emphasis is boundary creation or retracement.

LTS can also create or retrace boundaries, but includes determination of objects, improvements, occupation, deeper dive on easements and other encumbrances, etc.



The *Minimum Standard Detail Requirements* contains a lot of detail to help guide surveyor.

The only “rigid” requirements are the minimum survey and plat contents & RPP.

How to achieve these is left to the surveyor to determine



E. Summary

Information and help is available

Gary Kent, PS, is **the** expert on ALTA/NSPS Standards

He is NSPS liaison on ALTA/NSPS and has been involved with the standards evolution

Writes and presents a lot on ALTA/NSPS

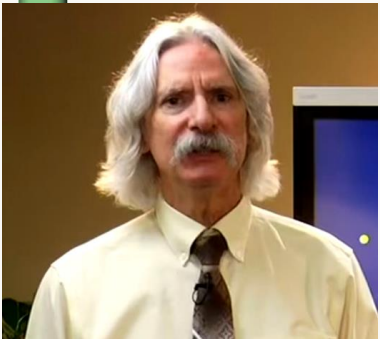
The American Surveyor Magazine

National and State conferences

Has been in Wis a few times

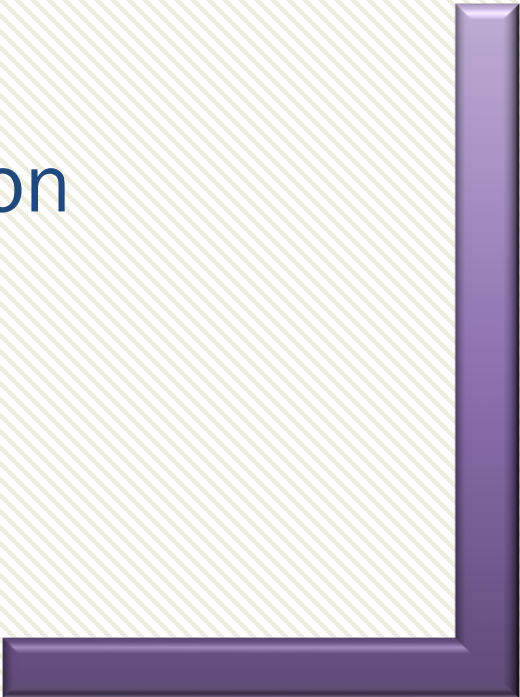
Mentoring Mondays presentations (<https://mentoringmondays.xyz>)

Has a series of short courses on *GeoLearn* (<https://geo-learn.com>)





ALTA/NSPS LAND TITLE SURVEYS

- ✓ A. Background
 - ✓ B. ALTA/NSPS Standards Organization
 - ✓ C. Required Elements
 - ✓ D. Table A
 - ✓ E. Summary
- 



Assignment

Question 1. While performing a survey you encounter what appears to be an access easement across the property which does not appear in the title report provided you by the title insurer. You do some additional research and in a few adjoining records find language which could line up the suspected access easement. What should you do?

- a. Advise the insurer of the discovered easement records before map delivery.
- b. Because the easement wasn't in the title report, don't show it on the map but add "...and subject to all easements of record" to the Certification statement.
- c. Show the easement on the map.
- d. Add a note to the map stating there is a potential blanket easement.



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Reference: Sec 6.C.viii



Assignment

Question 2. A creek is the boundary on one side of a property. In the metes and bounds description the course is described as “...to Adams Creek; thence along said Creek to a point that is $S56^{\circ}25'10''W$ and 35.56 ft from an 8inch white oak; thence.....”. Your map must show: (select all that apply)

- a. the date the water boundary was measured
- b. the stream width
- c. whether the stream is navigable or not.
- d. a note that the water boundary is subject to change.



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- b. the stream width
- c. whether the stream is navigable or not.
- d. a note that the water boundary is subject to change.

Reference: Sec 6.B.vi.



Assignment

Question 3. The Relative Positional Precision is a function of

- a. systematic errors
- b. random errors
- c. mistakes
- d. personnel training



Assignment

Question 3. The Relative Positional Precision is a function of

- a. systematic errors
- b. random errors**
- c. mistakes
- d. personnel training

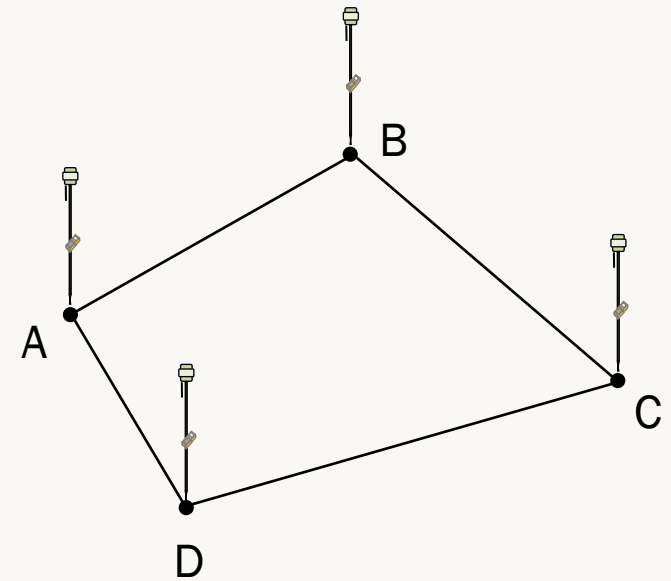
Reference: Sec 3.E.iv.



Assignment

Question 4. The found corners of a four-sided parcel are measured using RTK tied to a CORS base station. Between which points must the Relative Positional Precision be met?

- a. A & C, B & D
- b. A & B, B & C, C & D, D & A
- c. A & B, B & C, C & D, D & A, A & C, B & D
- d. Each of the four corners and the CORS station

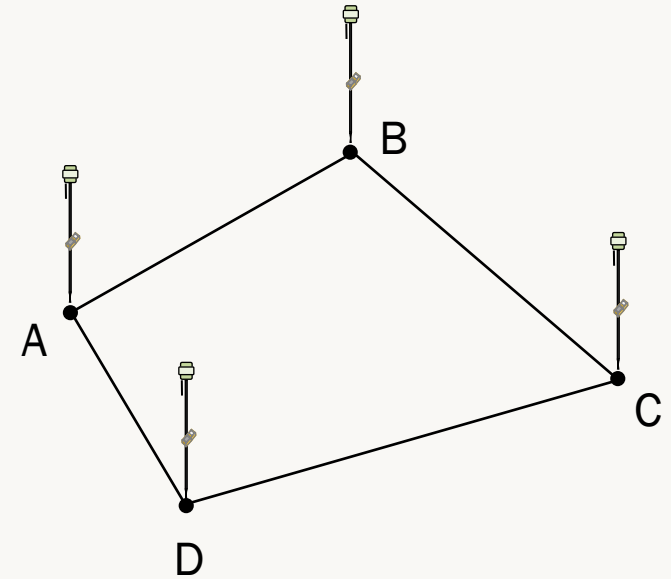




Assignment

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- a. A & C, B & D
- b. A & B, B & C, C & D, D & A
- c. A & B, B & C, C & D, D & A, A & C, B & D
- d. Each of the four corners and the CORS station



Reference: Sec 3.E.i.



Assignment

Question 5. Which of the following records for an existing parcel must be provided to the surveyor? Select all that apply.

- a. Current record description
- b. Certificate of taxes paid
- c. Descriptions of adjoining unless they are lots in a recorded subdivision
- d. Abstract of title



Assignment

Question 5. Which of the following records for an existing parcel must be provided to the surveyor? Select all that apply.

- a. Current record description
- b. Certificate of taxes paid
- c. Descriptions of adjoining unless they are lots in a recorded subdivision
- d. Abstract of title

Reference: Sec 4



Assignment

Question 6. If the client does not provide record information on easements then the surveyor is obligated to :

- a. do nothing as the information was the client's responsibility.
- b. perform his/her own research to ensure encumbrances be identified.
- c. only show on the map any observed easement evidence.
- d. show any observed easement evidence on the map and add "...and subject to all easements of record" to the Certification statement.



Assignment

Question 6. If the client does not provide record information on easements then the surveyor is obligated to :

- a. do nothing as the information was the client's responsibility.
- b. perform his/her own research to ensure encumbrances be identified.
- c. only show on the map any observed easement evidence.
- d. show any observed easement evidence on the map and add "...and subject to all easements of record" to the Certification statement.

Reference: Sec 4.



Assignment

Question 7. The sheet size for the Land Title Survey map must be:

- a. 8-1/2" x 11"
- b. 8-1/2" x 11" or larger
- c. 8-1/2" x 14"
- d. 8-1/2" x 14" or larger



Assignment

Question 7. The sheet size for the Land Title Survey map must be:

- a. 8-1/2" x 11"
- b. 8-1/2" x 11" or larger
- c. 8-1/2" x 14"
- d. 8-1/2" x 14" or larger

Reference: Sec D.i.